










# Dario Gjorgjevski

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## Education

**Ss. Cyril and Methodius University** 2013-09-15/2018-01-30  
**Faculty of Computer Science and Engineering** Skopje, Macedonia  
Computer Science and Engineering Bachelor's degree  
GPA of 10.00, on a scale from 5 (E/F) to 10 (A)

Strong background in linear algebra, statistics, stochastic processes, operations research, and cryptography. Transcripts available upon request. Publications: [[1](#), [2](#), [3](#)].

Over 40 *Massive Open Online Courses* on topics related to game theory, probabilistic graphical models, Bayesian statistics, combinatorics, programming language theory, mathematical optimization, etc.

Certifications available at [🔗/Personal/tree/master/Certifications.](#)

## Experience

**Segment of One** 2018-07-18/  
Data Engineering Berlin, Germany

- Modeling clients' business rules as *minimum-cost flow* problems.
- Developing internal ETL tools and processes; implementing *change data capture* for heterogeneous data sources.
- Scaling of feature calculation and predictive analytics to terabytes of data inside a Vertica cluster.

**Infinite Analytics, Inc.** 2017-11-20/2018-06-15  
Data Science/Engineering Skopje, Macedonia

- Scraping of clients' websites and product catalogs using Scala/Akka and Python/Scrapy.
- Dynamic configuration of upstreams with persistence across restarts in NGINX Plus.
- Acquisition, monitoring, analysis, and visualization of server utilization data.
- Behavior-driven development of a Scala/Apache Spark program to compute and visualize *customer insights* using over 2 billion facts about 50 million customers.

École polytechnique fédérale de Lausanne  
Laboratory for Communications and Applications

2017-07-07/09-20  
Lausanne, Switzerland

Research Internship

Supervisors: Jagdish Acharya and prof. Jean-Yves Le Boudec

- Implementing software agents (asyncio) and network emulation (Mininet) in T-RECS, a *Software Testbed for Multi-Agent Real-Time Control of Electric Systems*.
- Time series modeling of smart grid power traces at a timescale of 20 ms using approaches based on wavelets and long-range dependence.
- Increasing the resolution of mean-aggregated data using deep learning for super-resolution.

Ss. Cyril and Methodius University  
Faculty of Computer Science and Engineering

2016-10/2017-02  
Skopje, Macedonia

Computer Laboratory Assistantship

Full responsibility for conducting computational exercises and homework assignments in:

Linear Algebra	Least squares, linear codes, and low-rank approximations with Mathematica® and SAGEMATH.
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Probability and Statistics	Data visualization, Monte Carlo methods, statistical inference, hypothesis testing, and linear regression with R.
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Databases	ER modeling, relational algebra, and ANSI SQL.
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École polytechnique fédérale de Lausanne  
Security and Cryptography Laboratory

2016-06-15/09-15  
Lausanne, Switzerland

Research Internship

Supervisors: Sonia Bogos and prof. Serge Vaudenay

Studying and improving upon the complexity of state-of-the-art solving algorithms for the *Learning With Errors* (LWE) problem.

## Honors and Achievements

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- Best student paper at the 14th International Conference on Informatics and Information Technologies held on April 7–9, 2017 in Hotel Bistra, Mavrovo, Macedonia.
- Scholarships to attend the 2016 and 2017 editions of the Summer School on Real-World Crypto and Privacy held in Šibenik, Croatia.
- Dean's list at the Faculty for Computer Science and Engineering.
- Merit-based scholarships from the Faculty of Computer Science and Engineering, the Ministry of Education and Science of Macedonia, and the Municipality of Delčevo.

## Skills

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### Programming and Computation

*Proficient with*

- Python – NumPy, SciPy, Pandas, scikit-learn, Keras, Scrappy, NetworkX.
- R – data.table, Tidyverse, mlr, caret, interfaces to JAGS and Stan.  
Packages for time series analysis, network analysis, text mining.
- SQL – Vertica, PostgreSQL, Redshift.
- Shell – sh, Bash, Zsh.
- CAS – Mathematica®, SAGEMATH.
- (D)VCS – Git.

*Familiar with* – Scala, C, C++, Java.

*Academic exposure to* – various Lisps, Haskell, Standard ML.

### Document Preparation

- $\LaTeX$ , Jupyter, Sweave/knitr, Wolfram Notebooks.
- Matplotlib, TikZ/PGF, PSTricks, ggplot2, gnuplot, Graphviz.

## Publications

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- [1] **Dario Gjorgjevski**. “Combining LWE-Solving Algorithms”. In: *Proceedings of the 14th International Conference on Informatics and Information Technologies* (Hotel Bistra, Mavrovo, Macedonia, Apr. 7–9, 2017). Ed. by Aleksandra Popovska–Mitrovikj, Biljana Tojtovska, and Kire Trivodaliev. 2017, pp. 165–170. ISBN: 978-608-4699-07-1. eprint: <http://ciit.finki.ukim.mk/data/papers/CIIT2017.pdf>.
- [2] **Dario Gjorgjevski**. “Error-Correcting Codes in the Rank Metric”. With Applications to Cryptography. Bachelor’s Thesis. Under sup. of Simona Samardjiska. Ss. Cyril and Methodius University, Jan. 24, 2018.
- [3] **Dario Gjorgjevski** and Dejan Gjorgjevskij. “Using Distributed Representations to Identify Genders and Age Groups of Twitter Users”. In: *Proceedings of the 15th International Conference on Informatics and Information Technologies* (Hotel Bistra, Mavrovo, Macedonia, Apr. 20–22, 2018). Ed. by Nataša Ilievska and Georgina Mirčeva. 2018. To be published.